DOCUMENT RESUME

ED 447 197 TM 032 086

AUTHOR Brandt, Tiffany E.; Gielbelhaus, Carmen R.
TITLE Word Study and Spelling Achievement.
PUB DATE 2000-10-00
NOTE 22p.; Paper presented at the Annual Meeting of the Mid-Western Educational Research Association (Chicago, IL, October 25-28, 2000).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Action Research; Elementary Education; *Elementary School Students; *Learning Disabilities; *Spelling; Spelling Instruction; Teaching Methods; *Word Study Skills

ABSTRACT

An action research project was conducted to measure any difference in spelling achievement after Word Study activities were used during spelling instruction. Word Study approaches to spelling instruction offer hands-on experiences with the manipulation of letters to form words. It was hypothesized that students taught spelling skills with a Word Study approach would demonstrate greater achievement as measured by the Developmental Spelling Analysis (K. Ganske, 1999) than those taught using a basal-based approach. In this quasi-experimental study, the research used a nonindependent "t" test design with matched pairs. The convenience sample consisted of 12 students in a Developmentally Handicapped classroom in a large urban school district in Ohio. The students were tested before Word Study activities were incorporated into spelling instruction. Students were grouped into developmental spelling groups based on their scores from the Developmental Spelling Analysis and then engaged in Word Study activities. AT the end of 4 weeks, the students were posttested using the same instrument. The scores were matched and correlated to measure any increase in spelling achievement. Significant differences were found in sores before and after treatment. The non-independent "t" test scores showed $t(1)=2.602 p>0.05$. This outcome suggests that the use of Word Study activities increases spelling achievement. (Contains 23 references.) (Author/SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL IN MICROFICHE
AND IN ELECTRONIC MEDIA FOR ERIC
COLLECTION SUBSCRIBERS ONLY
HAS BEEN GRANTED BY

T. Brandt

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

2A

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 447 197

WORD STUDY AND SPELLING ACHIEVEMENT

Tiffany E. Brandt
Columbus City Schools
Columbus, Ohio

Carmen R. Giebelhaus, Ph.D
University of Dayton

TM032086

A paper presented at the annual meeting of Mid-Western Educational Research Association, October,2000, Chicago, IL.

BEST COPY AVAILABLE

Abstract

The purpose of this action research project was to measure any difference in spelling achievement after Word Study activities were used during spelling instruction. As an educator, the lack of spelling achievement was frustrating. For years, educators have taught spelling in isolation from books. Word Study approaches offer hands-on experiences with the manipulation letters to form words. It is hypothesized that students who are taught spelling skills with a Word Study approach will demonstrate greater achievement as measured by the Developmental Spelling Analysis than those taught using a basal-based approach. In this quasi-experimental study, the researcher used a non-independent *t* test design with matched pairs. The convience sample consisted of twelve students placed in a Developmentally Handicapped classroom in a large, urban school district in Ohio. The students received a post-test before Word Study activities were incorporated into spelling instruction. Based on their scores from the Developmental Spelling Analysis (Ganske, 1999), the students were placed in developmental spelling groups and engaged in Word Study activities. At the end of four weeks, the students were post-tested using the Developmental Spelling Analysis again. The scores were matched and correlated to measure any increase in spelling achievement. The researcher found significance difference in the post test scores before treatment and the scores after treatment. The non-independent *t* test scores showed $t(12) = 2.602$ $p > .05$. This outcome suggests that in fact, the use of Word Study activities increases spelling achievement.

BEST COPY AVAILABLE

WORD STUDY ACTIVITIES AND SPELLING ACHIEVEMENT

Purpose

Spelling is something that most teachers dread having to face as part of the curriculum that must be taught. Why? Often it is because so little progress is made and that which is made is often not lasting. Teachers try varied activities to try to improve achievement often to no avail. As a primary teacher, I have worried about this issue as it relates to writing and reading achievement. Would another approach have longer lasting results? Some research (Bear & Barone, 1989; Bear, Invernizzi, Templeton, & Johnson, 2000) suggest that Word Study may produce better results. They define Word Study as learner-centered, hands-on manipulation of words and instruction in phonics, spelling, and vocabulary. Due to the lack of spelling achievement in my classroom using a basal-based approach, this action research study was intended to measure spelling achievement after Word Study activities compared to using a traditional basal approach.

The purpose of this quasi-experimental study was to measure the effectiveness of Word Study activities on spelling achievement. Spelling achievement was measured using the Developmental Spelling Analysis (Ganske, 1999). The Developmental Spelling Analysis (DSA) determined the child's Stage of Development. The independent variable was Word Study activities. "Word Study is a learner-centered, conceptual approach to instruction in phonics, spelling, word recognition, and vocabulary" (Bear et al., 2000, p. 404). Some Word Study activities include: word sorts, writing sorts, word hunts, word study notebooks, and word games. The hypothesis that guided this inquiry was students taught spelling skills with a word study approach would demonstrate greater achievement as measured by the Developmental Spelling Analysis than those taught using a basal-based approach.

BEST COPY AVAILABLE

Review of the Literature

The literature abounds on teaching spelling, from invented spelling research to the traditional basal-based approaches. Yet, it does not seem to transfer to practice...or does it? Why do many students know spelling words on Fridays for the test but cannot remember them on Monday? As an educator, you may have asked yourself that question any number of times. For years, educators taught spelling through the spelling books in isolation. The spelling rules needed to be taught; but not necessarily in context. Spelling strategies have been researched for years and we have found that trying to teach spelling by rules or in isolation does not work (Bear & Templeton, 1998). As Templeton & Morris (1999) reminded us, to every rule there is an exception. This is very apparent in our English spelling.

Spelling: Traditional versus Invented

Over the years, ideas for teaching spelling have gone through many changes. Clark (1988) and Richgels (1995) focused their research on traditional and invented spelling. Clark (1988) looked at the traditional spelling model versus the invented spelling model. She found that children who used invented spelling had lower sight word recognition than those who used traditional spelling; but invented spellers attempted to spell more words they did not know and showed deeper word analysis skills. Richgels (1995) findings also concluded that children who used invented spelling attempted to spell any word, it did not matter how difficult the word.

Three Principles of Spelling

Through spelling, children show their understanding of letters and sounds, letter and syllable patterns, and meaning (Bear & Templeton, 1998). The three principles of the English orthography are alphabetic, pattern, and meaning (Bear, Invernizzi, Templeton, & Johnston, 2000; Bear & Templeton, 1998; Griffith & Leavell, 1995; Henderson, 1984; Henderson & Templeton, 1986; Invernizzi, Abouzeid, & Gill, 1994).

BEST COPY AVAILABLE

Invernizzi et al. (1994) referred to these principles as the Developmental Spelling Theory.

As children move through these stages, they focus on different strategies used in spelling. Children enter the alphabetic principle when they are familiar with the alphabet and have started to match letters with sounds in the correct left-to-right sequence (Bear et al., 2000; Bear & Templeton, 1998; Griffith & Leavell, 1995; Henderson & Templeton, 1986; Invernizzi et al., 1994). Children move into the pattern principle when they begin to understand silent letters and look at the sound exceptions in words. Letter patterns understood at this stage are consonant-vowel-consonant (CVC), consonant-vowel-consonant-silent e (CVCe), and consonant-vowel-vowel-consonant (CVVC) (Bear et al., 2000). The meaning principle is obtained when children understand "... the fact that words or parts of words having the same or similar meaning tend to be spelled the same" (Henderson & Templeton, 1986, p. 306).

Developmental Levels of Spelling

Using these developmental levels of spelling are important for the instruction of spelling. Researchers (Bear & Barone, 1989; Bear et al., 2000; Bear & Templeton, 1998; Fresch & Wheaton, 1997; Henderson & Templeton, 1986; Invernizzi et al., 1994) supported the idea of six levels of spelling development. They also agreed on the characterics and the importance of educators' use of these to group and guide spelling instruction.

Children start at the Pre-literate/Prephonetic level. At this level, you will see children using scribbles, letters, numbers, and pictures for words. Children at this level are familiar with print and have begun to imitate reading and writing. Everything written at this level is unreadable by the teacher or the child. There is no connection between how the word is spelled and its pronunciation (Bear & Barone, 1989; Bear et al., 2000; Bear & Templeton, 1998; Fresch & Wheaton, 1997; Henderson &

Templeton, 1986).

As children begin to match letters and sounds, they have moved into the Phonetic level (Bear & Barone, 1989; Fresch & Wheaton, 1997; Henderson & Templeton, 1986). This is sometimes referred to as the Early Letter-Name Stage (Bear & Templeton, 1998; Bear et al., 2000). Invented spellings are seen at this level. Here children provide evidence that they can use the alphabetic principle (Bear & Templeton, 1998). However, most students at this level are not using vowels in their spellings. At this time, we usually only see the beginning and ending sound of the word (Bear & Barone, 1989).

Children entering the Letter-Name Level have mastered beginning and ending sounds (Bear & Barone, 1989; Bear et al., 2000; Bear & Templeton, 1998; Fresch & Wheaton, 1997; Henderson & Templeton, 1986). They have started using vowels to represent sounds and each letter stands for one sound in the word. Bear et al. (2000) suggested that students still omit most silent letters and preconsonantal nasals. Students in this level begin to develop a sight-word vocabulary (Bear & Templeton, 1998; Fresch & Wheaton, 1997; Henderson, 1981).

In the Within-Word level, students have mastered short vowel sounds. They begin to look at words more abstractly (Bear & Barone, 1989; Bear et al., 2000; Bear & Templeton, 1998; Fresch & Wheaton, 1997; Henderson & Templeton, 1986). Henderson (1981) suggested that students stay in this level for approximately one year. Children begin marking long vowel sounds, past tense, and consonant blends and diagraphs in the level. Children also begin using complex vowel digraph patterns. Fresch & Wheaton (1997) report that children begin to internalize spelling rules.

As children begin to play with how syllables combine, they are entering the Syllable-Juncture level (Bear & Barone, 1989; Bear et al., 2000; Bear & Templeton,

BEST COPY AVAILABLE

1998; Fresch & Wheaton, 1997; Henderson, 1981; Henderson & Templeton, 1986). Children at this level have mastered basic vowel patterns and are focusing on consonant doubling. Children are also entering the meaning principle in this level. They are gaining knowledge about how prefixes and suffixes are attached (Bear & Templeton, 1998).

The final development stage of spelling is Derivational consistency. In this level, students have mastered high frequency words. Henderson & Templeton (1986) explained this stage as the one in which students explore the silent/sounded consonant patterns in words. Once they understand this concept, they move into vowel alterations. Bear & Templeton (1998) suggested that it is here children begin to respect that words related in meaning, are often related in spelling; but sometimes change in sound.

Developmental Spelling Analysis

The Developmental Spelling Analysis (DSA), created by Ganske, was published in 1999. The DSA was created to be an easy-to-use spelling tool for educators and researchers based on the developmental spelling theory. The goal of Ganske's DSA was to provide educators and researchers an accurate stance of children's acquisition of spelling knowledge. With this understanding, educators could look at the child's strengths and weaknesses and shape education around them. Ganske based the DSA on the work of Edmund Henderson (1990) and his colleagues at the University of Virginia and their theory that spelling knowledge is a developmental process and works through five stages. These are: Preliterate, Letter-Name, Within-Word Pattern, Syllable Juncture, and Derivational Consistency.

Ganske (1999) used two methods to measure the DSA's effectiveness, field testing and evaluating the measure. In the field testing measure, the DSA was field tested in the fall with children in Grades 2-6. There were 172 children in her sample.

BEST COPY AVAILABLE

Over a two-week period the classroom teachers dictated the Screening Inventory and one of the two Feature Inventories (Form A or B). Ganske scored all the Inventories using the scoring system explained in the methodology section of this paper. "Once the students' Stage of Development was known, comparisons were made with their Screening performance to learn which scores corresponded to each stage" (Ganske, 1999, p. 52). Ganske found .93 correlations between the Screening Inventory and students' spelling stage.

In order to evaluate the DSA, Ganske (1999) used a psychometric evaluation. Her sample consisted of 1,016 students, 51.5% were girls and 48.5% were boys. They were in Grades 1 to 8 from two central Virginia public school systems, one urban and one rural. None of the classes that participated in this study took part in the field testing.

Ganske (1999) randomly assigned classes at each grade level to one of four groups (AA, BB, AB, or BA). This DSA testing occurred in spring. The students were first tested using the Screening Inventory to attain appropriate starting points on the Feature Inventories. All of the students were assessed twice, the first time to obtain reliability and validity and the second time to detect developmental trends. Ganske scored all responses, except those from the initial Screening Inventory. Graduate students in a university reading program scored those in order to save time. Ganske was able to establish reliability and validity for the DSA (see methodology).

Phonetic Cues in Spelling

The thought that children use phonetic cues in spelling has been greatly researched (Barron, 1980; Juel, Griffith, & Gough, 1986; Lennox & Siegel, 1996; Nunes, Bindman, & Bryant, 1997; Scholes, 1993; Treiman, 1994). Some of the research showed that children start out spelling words phonetically and move into more advanced spelling strategies (Nunes et al., 1997; Lennox & Siegel, 1996).

BEST COPY AVAILABLE

Nunes et al. (1997) supported this idea by suggesting that children proceed through four spelling steps.

In the first step, the child uses a phonetic spelling strategy. Beginning spellers tend to rely heavily on the letter-name strategy. Treiman (1994) explained the letter-name strategy as children representing words, sounds, or syllables with letters that match their letter names. As children begin to understand grammar rules and attempts to use them, they enter step two. The third step involves using the grammar rules even if they do not fit with the letter-sound rules. And lastly, the children will begin applying the exceptions to the grammar rule (Nunes et al., 1997).

Word Study

Word study is the latest way to incorporate phonics, vocabulary, and spelling instruction (Bear et al., 2000). "Word study is a learner-centered, conceptual approach to instruction in phonics, spelling, word recognition, and vocabulary" (Bear et al., 2000, p. 404). Henderson (1990), Henderson & Beers (1980), and Templeton & Bear (1992) developed the basis for word study from their studies of developmental word knowledge. Word study uses a hands-on activities that allows children to play with and manipulate words for a deeper cognitive understanding. The skills children focus on include: speech sounds, word structures, spelling patterns, and meaning of words in word study (Bear et al.). Children accomplish these skills through examination, discrimination, and the making of critical judgments about words. Gill (1992) stated, "Progression in word knowledge is accomplished as children notice spelling invariances they have the prerequisite knowledge to understand" (p.445). Word study provides these spelling invariances.

Word study has two goals. The first goal is to teach children, through hands-on activities, to see the differences in words. This includes the regularities, patterns, and rules of English orthography needed to read and spell. The second goal of word study

is to increase the childs specific knowledge of words, spelling, and meaning (Bear et al., 2000).

Examples of word study activities. In order for word study to be effective, it needs to be interesting and motivating for the children. They must have the want and desire to keeping learning. Bear & Templeton (1998) explained five different types of word study activities that could be done with students. Word sorts are very popular word study activities. In word sorts, children are comparing and contrasting words. They are grouping them according to their likes and dislikes. Word sorts can be open or closed. In open word sorts, students determine the categories for the words. In closed word sorts, the teacher determines the categories the words will fit into. The key skill to look for in word sorts is the fluency of the student. The more fluent a student, the more it will be demonstrated in their writings.

Writing sorts are another word study activity that Bear & Templeton (1998) described. Writing sorts are done after a closed sort. The categories are already set up and after the words are said out loud , the student writes the word under the appropriate category.

Word hunts involve patterns (Bear & Templeton, 1998). Students return to texts to find words that fit into the pattern they have been studying. The students may record these in word study notebooks.

Bear & Templeton (1998) described that word study notebooks are kept for students to collect their words and compile any word sorts. The teacher may provide this notebook or it can be part of another notebook.

The last type of word study activity discussed by Bear & Templeton (1998) were word games. In this activity, the teacher can modifies almost any card or board game for word study. This activity is especially fun for the students.

Offering a variety of word study activities can ensure that the students get many

opportunities to practice the skills to be learned. Variety should also eliminate any boredom.

Clearly, Word Study activities appear to impact spelling achievement. Learning about developmental spelling techniques may assist educators as they struggle with teaching spelling.

Methodology

Objective

The purpose of this quasi-experimental study was to measure the effectiveness of Word Study activities on spelling achievement. Spelling achievement was measured using the Developmental Spelling Analysis (DSA) (Ganske, 1999). The DSA determined a child's Stage of Development. The independent variable was Word Study activities. "Word Study is a learner-centered, conceptual approach to instruction in phonics, spelling, word recognition, and vocabulary" (Bear et al., 2000, p. 404). Some Word Study activities included: word sorts, writing sorts, word hunts, word study notebooks, and word games (Bear et al.). The dependent variable was the child's spelling achievement as measured by the DSA.

Since this was an action research project, there were some limitations to this study. One limitation to this study was the sample. It was a convience sample. The researcher had access to twelve students placed in a Developmentally Handicapped classroom. The students ranged in age from 7 years to 10 years. Another limitation was the lack of time the study was conducted. This study lasted for a period of six weeks. Since this was such a short time the study's results can not be generalizable. The researcher recognized and accepted the lack of generalizablity of the findings, resulting from the small sample and length of the study.

The researcher assumed that all students tried their best when completing the Developmental Spelling Analysis. It is also assumed that some students were better

spellers than others. This could have greatly affected the results.

Hypothesis

It is hypothesized that students who were taught spelling skills using a Word Study approach would demonstrate greater achievement as measured by the Developmental Spelling Analysis than those who were taught using a traditional basal-based approach. For the purpose of completing the inferential statistics, the null hypothesis was students who were taught spelling skills using a Word Study approach would not show any significant difference as measured by the Developmental Spelling Analysis than those who were taught using a basal-based approach.

Procedures

Population and sample. The target population for this study were all students in Grades 1-3 placed in a Developmentally Handicapped classroom. The accessible population were those students placed in a Developmentally Handicapped classroom at the researcher's school. The matched pair sample consists of twelve students placed in a Primary Developmentally Handicapped classroom, Grades 1-3. The sample was a convience sample as it consisted of the researchers students. There were three girls and nine boys. Three students, one girl and two boys, were in the first grade. Six students, two girls and four boys, were in the second grade. Three students, three boys, were in the third grade. These students attended a large, urban school district in Ohio. It has low-socioeconomical status with 75% percent on free lunch.

Design. This was a quasi-experimental study. The researcher used the Non-independant *t* test design using matched pairs.

Procedure. The first steps taken by the researcher were to notify her building principal of her experiment and the parents of the students involved. After a discussion, a letter was submitted to the principal. A second letter was sent to the

parents of the students involved informing them of the changes they may see in their childs spelling assignments.

This action research project took place over a period of six weeks. During week one of the study, all twelve students in the sample individually took the Developmental Spelling Analysis (Ganske, 1999). The students received both parts of the analysis, the Screening Inventory and one of the Feature Inventories. The researcher administered and scored all of the tests. After the scoring of the inventories, the researcher placed students in groups according to their appropriate Stage of Development.

During weeks two through five, each students was instructed in spelling using Word Study activities in their small groups. Each group received 10-15 new words a week. On Mondays, the students completed word sorts. In this activity, the students were asked to group words into categories. Students' were asked to compare and contrast words within and across categories.

On Tuesdays, the students completed a writing sort. This activity always follows a word sort. In the Word Study activity, students wrote key words under appropriate column headings. Words were called out and the students wrote the word they heard under the appropriate heading.

Students were asked to alphabetize they words on Wednesdays. This required laying out an alphabet strip and the students taking their word cards and placing them under the correct letters.

Thursdays were word maker days. The collection of cards had the onset (the initial consonant(s) sound) on half and the vowel rimes (composed of vowel and any following consonants within a syllable) on the other half. The students were then asked to choose a onset and rime and make words.

Lastly, Fridays consisted of word games and spelling tests. The word games

BEST COPY AVAILABLE

can encompass most any game. Spelling tests were given in order to maintain a grade for report cards. All of the groups received the same types of activities, just different words.

During week six, the researcher re-administered the Developmental Spelling Analysis individually. She again completed all the scoring on the inventories. The scores were matched to the previous scores so a measure of difference could be seen after they had engaged in Word Study activities.

Instrumentation. To measure the students spelling achievement, the researcher used the Developmental Spelling Analysis (DSA) developed by Ganske (1999). The DSA consisted of a Screening Inventory and two Feature Inventories, Form A and B. The Screening Inventory was designed to give the educator a students Stage of Development. Each Feature Inventory was made up of four word lists. Each of the word list stands for one of the stages of word knowledge: Letter-Name, Within-Word Pattern, Syllable Juncture, and Derivational Consistency. There are twenty-five words on each list, five words from each of the five spelling features in the stages of word knowledge. It should be noted that the Screening Inventory is optional. If an educator already knows a child's word knowledge, the Screening Inventory should be omitted.

The Screening Inventory was scored on the basis of correct/incorrect spelling. The child received on point for each correct word; however, the testing may have stopped after the child missed two words. If the testing did continue, no points were rewarded after the errors had occurred. After totaling up the points received, the educator could identify the child's predicted Stage of Development.

The Feature Inventories scoring applies for option one and option two. Scoring for both options was qualitative so that knowledge of specific features (Specific Features) and the ability to spell entire words (Stage Knowledge) can be seen. The child received: two points if the word was spelled correctly, one point if the feature was

spelled correctly, even if the entire word was not, and zero points if the target feature was misspelled. After the scores for each of the words were added up, the Stage Score was identified. If the Stage Score was between 12-21, you found that child's Stage of Development. Any students' who received a Stage Score of 22+ attempted the next word knowledge stage.

Time factors. This action research project spanned over a period of six weeks. Since this study looked at matched pairs scores, the whole group received the same treatment. During week one, all students individually received the Screening Inventory and one of the Feature Inventories of the Developmental Spelling Analysis (Ganske, 1999). After scoring each of the inventories, the students were placed in groups according to their appropriate Stage of Development. Weeks two through five consisted of a variety of Word Study activities. Examples of Word Study activities were taken from Words Their Way (Bear et al., 2000). Finally, during week six, the students again received the Developmental Spelling Analysis (Ganske, 1999). At that time they only received one of the Feature Inventories. After the researcher calculated the second set of scores, she matched those with the previous test scores. Data was calculated measuring the increase of spelling achievement after the use of Word Study activities in instruction.

Data analysis. The researcher used a non-independent *t* test to calculate scores of spelling achievement. The non-independent *t* test, here, was used to compare a single groups performance on a post test before treatment and a post test after treatment. The students scores' on the Developmental Spelling Analysis (Ganske, 1999) were correlated to determine if spelling achievement was more likely to happen after spelling instruction is changed. Since the samples were non-independent, there was a higher chance that the null hypothesis will be rejected.

BEST COPY AVAILABLE

Results

The researcher found significant difference between the scores of the post test before treatment and the post test scores after treatment. The non-independent *t* test scores showed $t(12)=2.602 p>.05$. Therefore, the researcher rejected the null hypothesis.

The students showed a dramatic increase in their scores after a short period of treatment, only four weeks. Of the thirteen participants, eight participants, representing 61.5% of the sample, showed a rise in their DSA scores after treatment. Five participants, representing 38.5% of the sample stayed consistent in their scores after treatment. Only two of those five participants received scores of zero for both post tests. The mean score for the post test before treatment was 3.92. After treatment, the mean score jumped to 8.31. See Table 1 for the distribution of scores from the post test before treatment and the post test after treatment.

Discussion

The Word Study approach used to teach spelling skills increased the spelling achievement made by students. The data collected confirmed my hypothesis that students who are taught spelling skills using a Word Study approach would demonstrate greater spelling achievement as measured by the Developmental Spelling Analysis than those who are taught through a basal-based approach. Due to the length of this study, only six weeks, the results gathered were not the ones expected. I expected to see minimal increases due to the short amount of time I had to implement the Word Study approach. Using the Word Study approach to teach spelling skills gave the students multiple opportunities to better understand how words are formed through manipulation activities. Word Study also allowed the students to receive spelling instruction at their appropriate, individual developmental level.

My students loved completing the Word Study activities. They felt as if they had

BEST COPY AVAILABLE

more control over their learning. My students need things very structured. By using the same activities every week, just changing the words, they really felt in control. Word Study activities also set up opportunities for cooperative learning situations. It was wonderful to see the students so enthusiastic about learning to spell. I loved the fact that for the first time, I was seeing reciprocal teaching going on.

Table 1

Developmental Spelling Analysis Scores Before and After Treatment

		Treatment	
Student	Grade	Before	After
1	1	0	0
2	1	0	0
3	1	0	8
4	2	15	33
5	2	2	5
6	2	2	2
7	2	1	1
8	2	0	1
9	2	2	2
10	2	2	4
11	3	5	6
12	3	15	26
13	3	7	20

BEST COPY AVAILABLE

Implications for teaching

As an educator, I feel the schools pushing for more individualized teaching for the students. The Developmental Spelling Analysis (DSA) (Ganske, 1999) provides educators with an appropriate developmental spelling level for each student. It also includes the students strengths and weaknesses within their developmental level of spelling. The DSA is very teacher friendly. It is not time-consuming to administer and is very easy to score. The DSA can be given individually or to a whole group. The DSA offers teachers a complete measuring tool for the developmental level of a student as well as a way to measure spelling achievement.

Using the Word Study approach offers educators a variety of activities to teach spelling. As with any new skill, the Word Study activities begin teacher directed. As the students become familiar with the expectations, the Word Study activities become student controlled. Word Study activities are easy for teachers to plan and provide enough variety that students do not become bored. Weekly routines can easily be set with Word Study activities.

Further research

Further research on this topic needs to be completed. Even though significant difference was found, the results can not be generalized because of the study's length and small sample. The study needs to be implemented across an entire school year to several different classrooms. Since most school systems use a basal-based approach to teach spelling, it would be easy to find control groups. I believe significant difference would also be found in a true experimental study.

This study also needs to be conducted in regular education classrooms. Since the study only measured spelling achievement of special education students, the results may change dramatically.

It would also be interesting to observe the connection between Word Study

BEST COPY AVAILABLE

activities and Reading achievement. Is it possible that the higher a childs Stage of Development in spelling can predict their ability to achieve reading skills?

Conclusion

I am very excited about what I found through this study. Spelling can be a very boring subject to teach. Word Study activities are exciting, new, and challenging for the students to complete. I will definitely start my school year using the Word Study approach to teach spelling skills

Works Cited

Barron, R.W. (1980). Visual and phonological strategies in reading and spelling. In U. Frith (Ed.), Cognitive Processes in Spelling (pp. 195-213). New York: Academic Press.

Bear, D.R. & Barone, D. (1989). Using children's spelling to group for word study and directed reading in the primary classroom. Reading Psychology, 10, 275-292.

Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2000). Words Their Way. (2nd ed.). New Jersey: Prentice-Hall, Inc.

Bear, D. R. & Templeton, S. (1998). Explorations in developmental spelling: Foundations for learning and teaching phonics, spelling, and vocabulary. The Reading Teacher, 52, 222-242.

Clarke, L. (1988). Invented versus traditional spelling in first graders' writings: Effects on learning to read and spell. Research in the Teaching of English, 22, 281-308.

Fresch, M. J. & Wheaton, A. (1997). Sort, search, and discover: Spelling in the child-centered classroom. The Reading Teacher, 51, 20-31.

Ganske, K. (1999). The developmental spelling analysis: A measure of orthographic knowledge. Educational Assessment, 6, 41-70.

Gill, J. T. (1992). Focus on research: Development of word knowledge as it relates to reading, spelling, and instruction. Language Arts, 69, 444-452.

Griffith, P.L. & Leavell, J.A. (1995). There isn't much to say about spelling...or is there? Childhood Education, Winter, 84-90.

Henderson, E. (1981). Learning To Read and Spell: The Child's Knowledge of Words. DeKalb: Northern Illinois Press.

Henderson, E. (1984). Teaching Children To Spell English. Boston: Houghton Mifflin.

Henderson, E. Teaching Spelling (2nd Ed.). Boston: Houghton Mifflin.

Henderson, E. & Beers, J. (1980). Developmental and Cognitive Aspects of Learning to Spell. Newark, DE: International Reading Association.

Henderson, E. & Templeton, S. (1986). A developmental perspective of formal spelling instruction through alphabet, pattern, and meaning. The Elementary School Journal, 86, 305-316.

Invernizzi, M., Abouzeid, M., & Gill, J.T. (1994). Using students' invented spellings as a guide for spelling instruction that emphasizes word study. The Elementary School Journal, 95, 155-167.

Juel, C., Griffith, P., & Gough, P. (1986). Acquisition of literacy: A longitudinal study of children in first and second grade. Journal of Educational Psychology, 78, 243-255.

Lennox, C. & Siegel, L. (1996). The development of phonological rules and visual strategies in average and poor spellers. Journal of Experimental Child Psychology, 62, 60-83.

Nunes, T., Bryant, P. & Bindman, M. (1997). Morphological spelling strategies: Developmental stages and processes. Developmental Psychology, 33, 637-649.

BEST COPY AVAILABLE

Richgels, D.J. (1995). Invented spelling ability and printed word learning in kindergarten. Reading Research Quarterly, 30, 96-109.

Scholes, R.J. (1993). On the orthographic basis of morphology. In Robert J. Scholes (Ed.) Literacy and Language Analysis (pp. 73-96). New Jersey: Lawrence Erlbaum Associates, Publishers.

Templeton, S. & Bear, D. (Eds.). (1992). Development of Orthographic Knowledge and the Foundations of Literacy. Hillsdale, NJ.: Lawrence Erlbaum.

Templeton, S. & Morris, D. (1999). Questions teachers ask about spelling. Reading Research Quarterly, 34, 102-112.

Treiman, R. (1994). Use of consonant letter names in beginning spelling. Developmental Psychology, 30, 567-580.